

*Exercise helps regulate your blood glucose levels – and leaves you feeling great!*

# On the MOVE

**W**HEN LILIANA ROMANOWSKI WAS diagnosed with type 2 diabetes five years ago, she faithfully went to diabetes education sessions to learn more about the disease. But she didn't take it too seriously – after all, she didn't need medication to treat the disease, and diabetes didn't seem to have any impact on her life. Then, last May, the Winnipegger starting having problems with her blood glucose control, which led to bouts of dizziness and blurred vision. That, she says, spurred her to action: a new exercise regimen, as well as better control of her diet.

By September, four months after she began, Romanowski reports, she was 30 lb lighter and her A1C had stabilized at around 6.7 per cent. “That was an incredible improvement from back in January, when everything went out of kilter,” she says. “I feel very good about my progress!”

Exercise and good diet: it's the one-two punch for good health for anyone, but especially for people with diabetes or pre-diabetes. Research shows that people can cut their risk of developing type 2 diabetes by more than half with moderate increases in physical



**Liliana Romanowski believes that the best motivation for staying with an exercise plan is seeing the difference it makes in her blood glucose levels.**

activity and a weight loss of five per cent of their initial body weight. For those who already have diabetes, a regular, moderate physical activity regimen can reduce mortality in type 2 diabetes as well as the risk of diabetes complications such as diabetic neuropathy. That's on top of other benefits such as increased cardiovascular endurance; reduced risk of cardiovascular disease, hypertension, colon cancer and osteoporosis; and increased energy, flexibility and well-being.

Despite these benefits, almost two-thirds of peo-

ple with diabetes are inactive. The reasons aren't too different than for the average Canadian, says Michael Riddell, an associate professor in the School of Kinesiology and Health Science at the Faculty of Health, York University, Toronto, Ont. "People seem to be resistant to change, perhaps because they're working hard, they are commuting, they're managing families, and maybe they just don't prioritize it. They think perhaps medication is enough," says Riddell, whose research is on the metabolic effects of exercise and stress on diabetes.

PHOTO: IAN MCCOUSLAND

## Getting started

THE FIRST STEP in setting up an exercise routine, says Riddell, is to meet with your healthcare team. “There needs to be some prescreening to make sure the individual is in good vascular health before they start any exercising – that their heart is healthy and their lungs are healthy.” Team members can discuss any potential risks of regular exercise, including hyper- or hypoglycemia, or potential exacerbations of conditions you already have.

They may also be able to help you set up an exercise plan that’s manageable for you. If you decide to set up a plan with a fitness trainer, make sure he or she knows about your diabetes and any other health conditions you may have. Once the plan is set up, “make sure your healthcare team is aware of what you’re doing, and they agree that it’s appropriate with respect to the timing, intensity and duration of exercise,” says Riddell.

A good resource for patients with diabetes, indeed, anyone with a chronic disease, is the Canadian Society for Exercise Physiologists ([www.csep.ca](http://www.csep.ca)). This is a voluntary group of professionals who have special training in setting up exercise programs for individuals with health complications such as diabetes. The downside is that, although CSEP has a section for contacts in each province, there may not be a certified trainer in all areas of Canada.

When developing any exercise plan, keep in mind that the Canadian Diabetes Association’s clinical practice guidelines recommend that people with type 2 diabetes do moderate-intensity aerobic exercises at least 150 minutes each week (over at least three non-consecutive days). New recommendations also suggest resistance training two to three times per week (each time should involve three sets of a maximum eight repetitions each).

*Aerobic* exercises, such as running, cycling or swimming, build up an individual’s endurance capacity, strengthening the heart, lungs and muscles. “Aerobic exercise in essence burns up glucose: that’s good because it will bring down your A1C,” says Riddell. It also improves your blood lipid profile, and can help with weight loss, especially visceral (or central) fat.

*Anaerobic* or resistance exercises, such as sprinting or power lifting, involve short bursts of high-intensity muscle use, with rests in between. “Not only does it increase strength,” says Riddell, “but it increases vigor, or your ability to get through the day with energy. It also increases your insulin sensitivity, so the amount of medication you need can go down for a given amount of food.”

It’s important, if possible, for you to include both

aerobic and resistance exercises in your weekly workout routine, says Riddell, because together they have an additive effect.

## Dealing with reasons not to exercise

■ **I don’t have time:** When Romanowski first heard about the Association’s guidelines on exercise, she thought, “There’s no way I can do that.” So instead, she set a goal of walking for 20 minutes during her lunch hour, twice a week. And it wasn’t hard to schedule in one more bout of exercise, usually swimming or biking, when she and her husband went up to the cottage each weekend. Now, she says, “I try to get in four to five times a week.”

■ **My body can’t take it:** Some people may be worried that exercise will throw their glycemic control out of kilter but, for people with type 2 diabetes at least, that notion is incorrect, says Riddell. (For people with type 1 diabetes, vigorous exercise can cause wider fluctuations in blood glucose, which requires more intensive and personalized control).

As well, of course, diabetes may have caused complications, such as cardiovascular or circulation problems, that can put up some roadblocks to starting an exercise routine. These individuals are still encouraged to exercise, but need to take extra care, says Riddell. For example, people with foot problems should have more frequent appointments with a chiropractor, should make extra sure they have good shoes for exercising, and be extra vigilant in watching for injuries or infections.

Resistance training is ideal for people with additional health conditions, because it offers the benefit of exercise without putting undue strain on the feet, heart or lungs.

■ **I hate exercising:** If you can’t afford a gym membership, or hate the very idea of “exercising,” don’t give up. You can get in the exercise minutes with things such as bowling, swimming, yoga, golf, skating, dancing and going for a walk. Everyday activities such as household chores, yard work, playing with children, gardening—even walking up and down the stairs—can also be helpful.

■ **I’m bored:** Maybe you’ve been following the same exercise routine for too long; feel free to shake it up with other activities such as those listed above. Another important trick, says Riddell, is to set short- and long-term goals for yourself that can be easily measured. If

you've decided to walk more, for example, a pedometer can help you keep track of how much you're actually walking—and motivate you to do more. You might have started out by walking only about 4000 steps per day, so set a goal to take 500 or 1000 more steps each day. “Before you know it, you're at 10,000 steps a day and you can start to see the effects,” Riddell says. Once you achieve each goal, he adds, reward yourself with a special treat, such as a new pair of pants or a new book.

Enlist your healthcare team, family members and friends in encouraging you to meet your goals, Riddell adds. Even better, get them exercising with you, “so you have a support team of people who are also going through the motivation issues, and so you're not doing this all alone.”

The best motivation for staying with an exercise plan, says Romanowski, is seeing the changes it makes. “I was surprised by how much the activity brings down my blood sugar,” she says. At one point, she took a week “off”

from exercising. One day, she started to feel dizzy, so tested her blood glucose: 12.9. “I went out for a walk for 30 minutes, came home and waited while I cooled down, and then tested again. My blood sugar was down to 6.9!” That gave her concrete proof of the benefits of exercise, she says, and renewed her commitment to exercising. “I hated feeling dizzy. I just feel really crappy when it's high.”

And it's up to her to make sure that feeling doesn't come back, she knows. “The real turnaround for me was realizing that [diabetes] wasn't going to go away. People say you can get rid of it or you're borderline. There's no such thing as borderline. Even though your blood sugar may be under control, you still have diabetes. That for me was a big shock, and led me to the realization that I had to make a change. It wasn't easy but it was the right time for me, and everything fell into place.” <sup>10</sup>

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